

AMALGAMATION OF THE GENUS *HALLIA*, THUNB. WITH *PSORALEA*, L.

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An examination of living plants of five out of the six¹ known species of *Hallia* and also of fourteen local species of *Psoralea* discloses the fact that the genus *Hallia* presents no characters by which it can reasonably be separated from *Psoralea*.

It is difficult to understand how this genus, which is so obviously near to *Psoralea* and has an identical legume, was ever placed in the Tribe Hedysaræ, although two of the species, *H. cordata* and *H. imbricata* were originally attributed to *Hedysarum* by Linnaeus.

The definitions of *Psoralea* and *Hallia* as given in Bentham and Hooker's *Genera Plantarum*, Vol. I, correspond well with the characters of the plants examined with the exception that in all the species of *Psoralea* the style is swollen at the upper bend (as in *Hallia*) and not at the base.² In four species, *P. decumbens*, Ait., *P. fascicularis*, D.C., *P. glaucina*, Harv. and *P. restioides*, E. & Z., the stamens have been found to be completely monadelphous, while in *P. capitata*, L.f. the tenth stamen is lightly attached to the tube and very easily separable, as is the case in all species of *Hallia*. It therefore seems that the generic definition of *Psoralea* should be amplified in these two respects. Otherwise there appear to be no characters in *Hallia* to exclude the genus from Bentham and Hooker's generic definition of *Psoralea*.

It is true that there is variation in the characters of the different species of *Hallia*, some being more closely akin to *Psoralea* than others. In *H. virgata*, Th. and *H. alata*, Th. the stipules are wholly or partly adnate to the petioles and the vegetative parts have the characteristic pellucid glandular dots of *Psoralea*, while in *H. asarina* (Berg) Th., *H. cordata*, (L) Th. and *H. imbricata* (L) Th. the stipules are free and the dotting is almost entirely absent. These variations, however, can

¹ The sixth, *H. filiformis*, Harv. was suspected by Harvey himself as a monstrosity.

² Mr. E. G. Baker and Miss D. Hillcoat have kindly examined several of the non-African species of *Psoralea* for me at the British Museum and they inform me that in all of them the swelling in the styles is exactly as I have found it to be, but as there are over a hundred species of *Psoralea*, they cannot say for certain that it is the case in all.

scarcely be held to separate them *inter se* and it therefore seems best to transfer all, rather than the first two only, to *Psoralea* for they present no characters other than those to be found in that genus.

The calyx in *Hallia* has an enlarged lower lobe and the two upper lobes are variably connate, exactly as in *Psoralea*. The leaves are simple, but this character is also found in some species of *Psoralea*. The legumes in both genera, as far as I have examined them are wrinkled or pitted.

The abridged generic definitions given by Harvey in the *Flora Capensis*, Vol. II, are misleading when tested with the species which I have examined. In *Psoralea* the vexillum is by no means always broad with reflexed sides, the stamens are never completely diadelphous and the ovary in some species is stipitate in the same very minor degree as in *Hallia*, but the stipe in both cases is so short as to be a negligible character. In *Hallia* the calyx, which is like that of *Psoralea*, can hardly be described as sub-equally 5-fid, the stamens are not completely monadelphous and the legume is hard and pitted, not membranous.

The following new names are proposed :—

Psoralea alata (Thunb.) Salter.

Psoralea asarina (Berg.) Salter.

Psoralea cordata (L.) Salter.

Psoralea inbricata (L.) Salter.

Psoralea laxa, Salter. (*Hallia virgata*, Thunb., non *Psoralea virgata*, Nutt.)